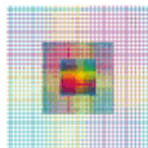
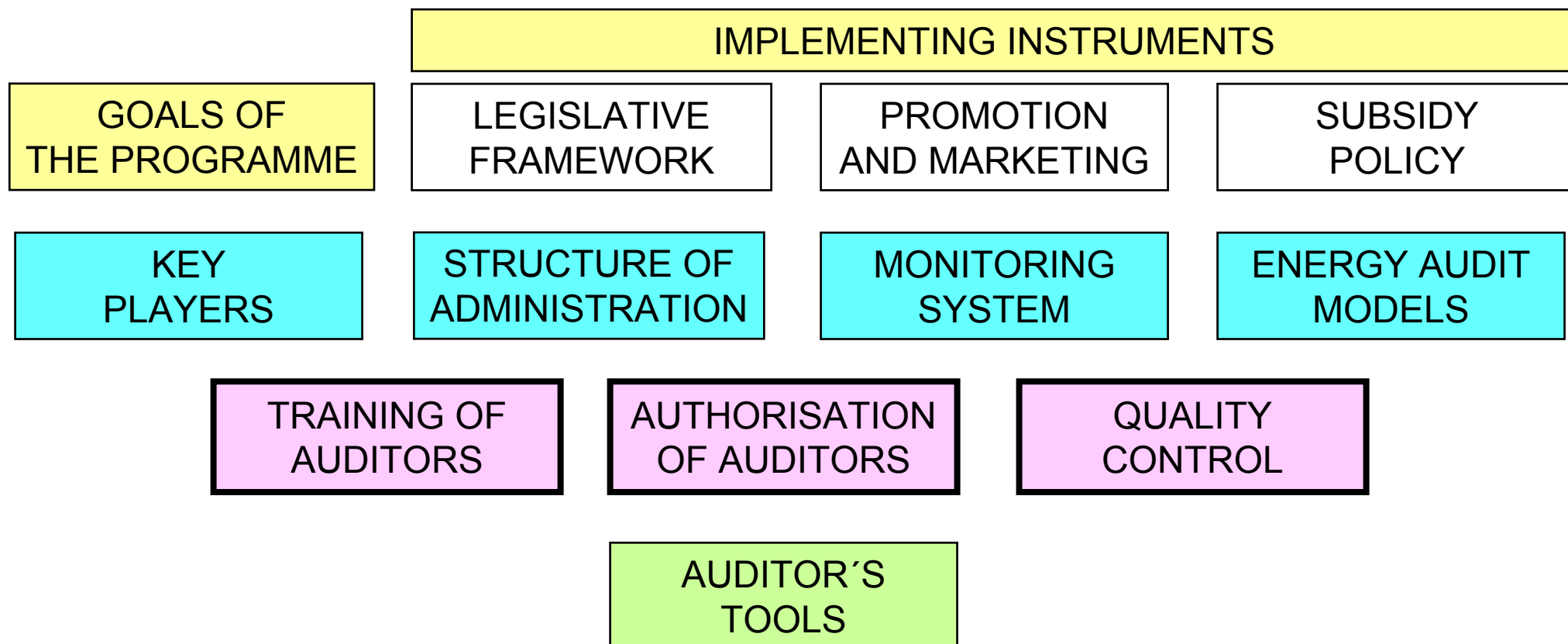


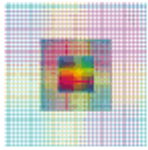
TRAINING, AUTHORISATION AND QUALITY CONTROL

TOPIC REPORT
DRAFT 30.08.2002
BY
ERJA REINIKAINEN
HEIKKI VÄISÄNEN

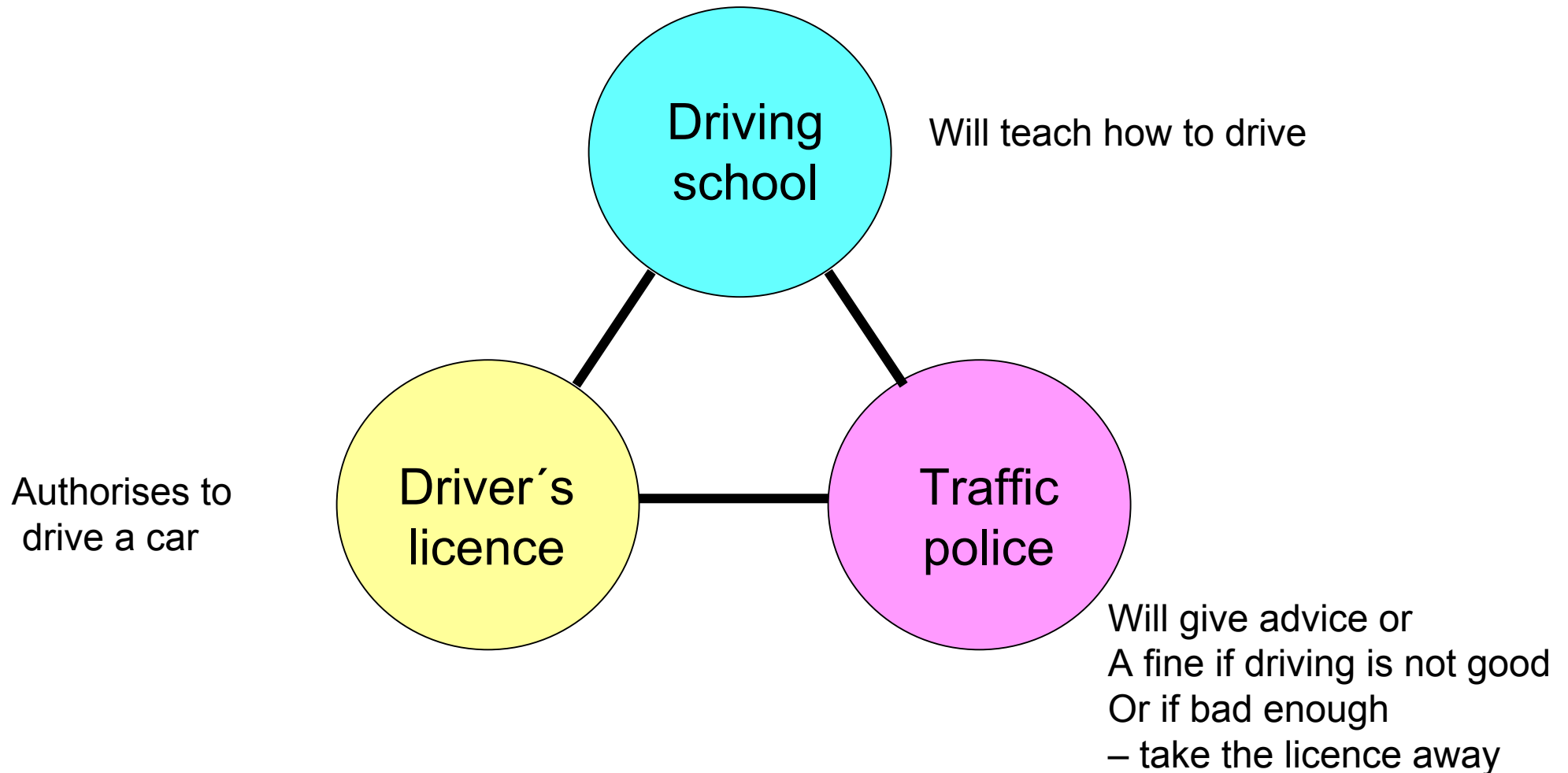


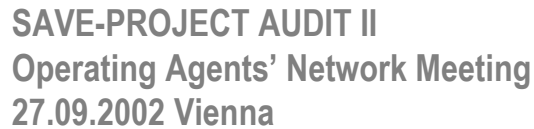
THE 12 ELEMENTS OF AN ENERGY AUDIT PROGRAMME



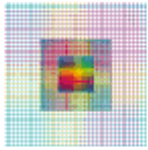


TRAINING, AUTHORISATION AND QUALITY CONTROL



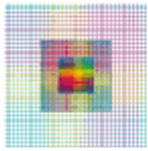


- ALL THESE THREE ELEMENTS - T, A & QC – HAVE AN EFFECT TO THE OUTPUT OF THE EA ACTIVITY
- ALL THESE ELEMENTS CAN BE “TUNED” TO DO ONE PART OF THE JOB
- IN PRINCIPLE (IN THE PERFECT WORLD)
 - THOROUGH MANDATORY TRAINING PRODUCES “SUPER AUDITORS”
 - TIGHT AUTHORISATION ALLOWS ONLY “SUPER AUDITORS” DO EAs
 - “HIGH EFFICIENCY FILTER” QC ACCEPTS ONLY SUPER EA REPORTS
- BUT IN REAL LIFE
 - THESE ARE MORE OR LESS THEORETHICAL OPTIONS
 - PERFECTION WOULD BE VERY COSTLY
 - THE EXCEPTION WOULD BE A VERY LIMITED EA ACTIVITY



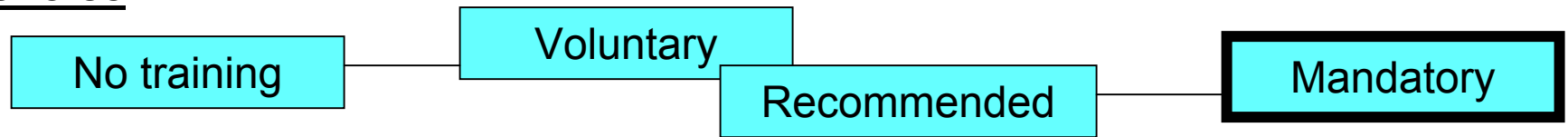
COST EFFECTIVE COMPROMISE BY BALANCING THE THREE ELEMENTS

- FROM THE OPERATING AGENT'S POINT OF VIEW THE QUESTION IS
"WHERE TO PUT THE AVAILABLE RESOURCES ?"
- RULE 1: ONE OF THE ELEMENTS MUST BE TIGHT
- TIGHT QUALITY CONTROL CAN COMPENSATE LIGHT OTHER OPTIONS
- LIGHT QUALITY CONTROL CAN BE APPLIED IF BOTH THE TRAINING AND THE AUTHORISATION ARE TIGHT
- LIGHT TRAINING AND TIGHT AUTHORISATION ARE NOT A GOOD MATCH

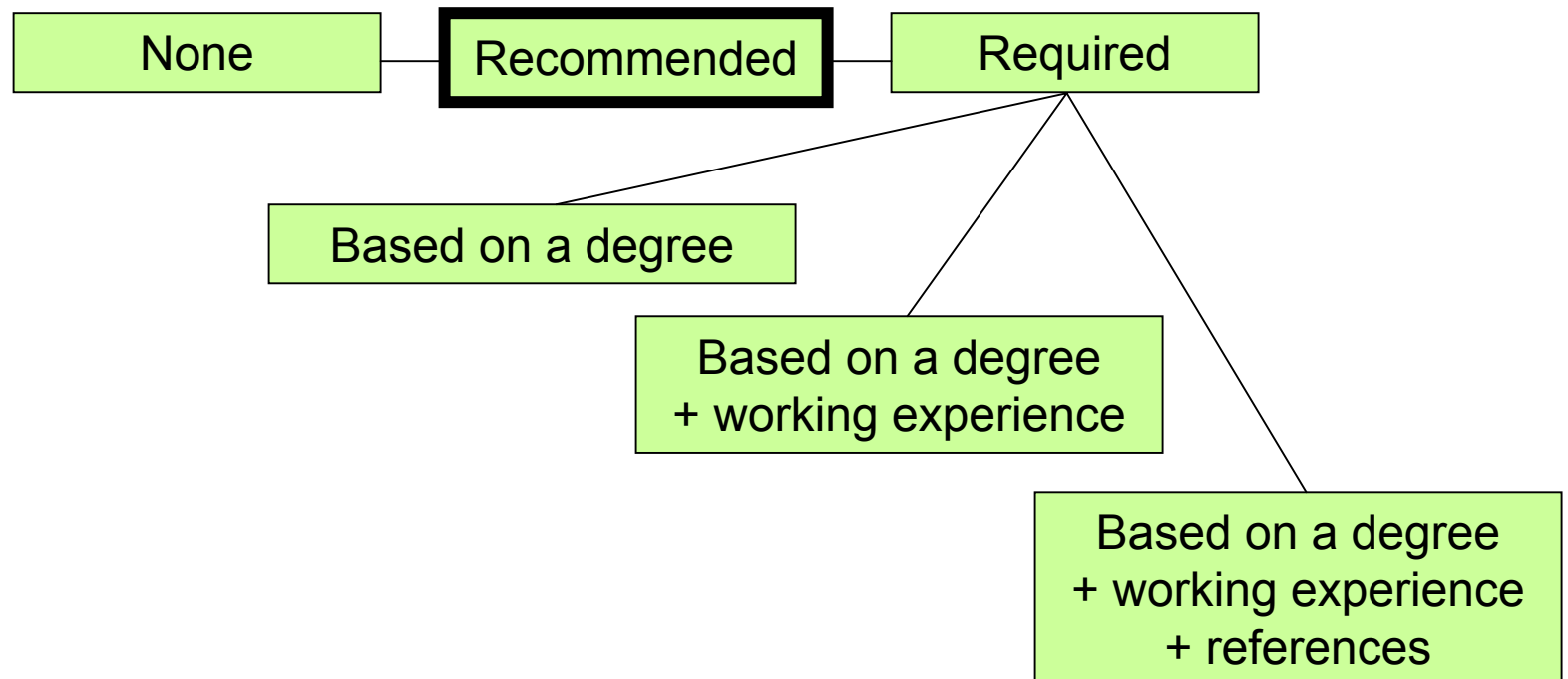


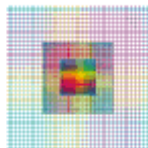
TRAINING - THE CHOICES

1. Basic choice



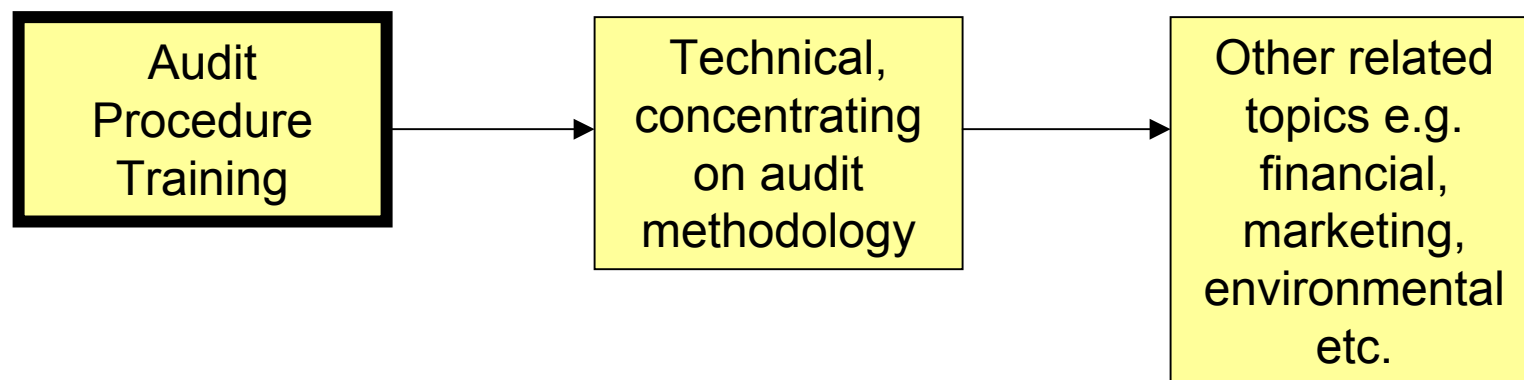
2. Pre-qualification



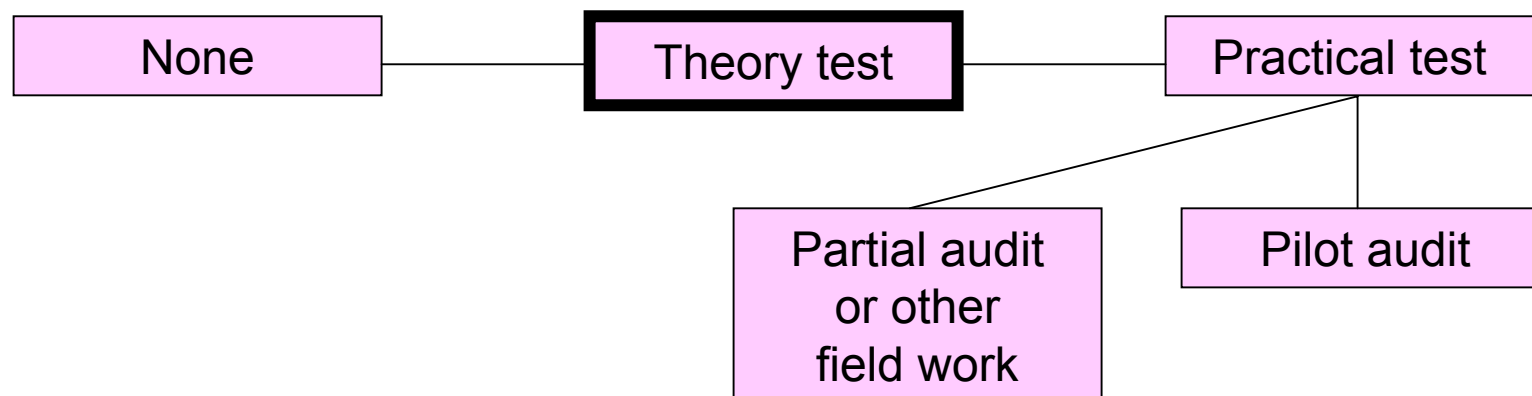


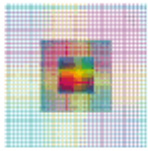
TRAINING - THE CHOICES

3. Content of training



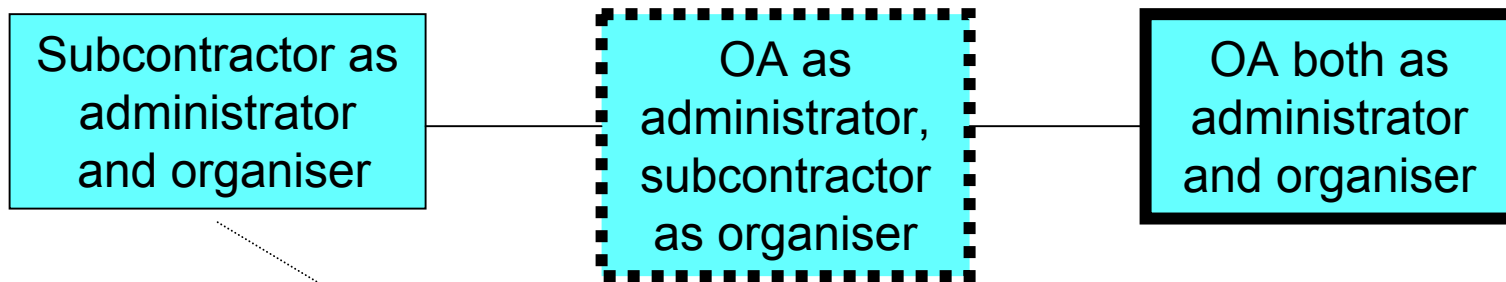
4. Indication of competence





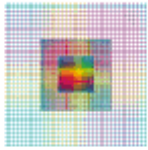
TRAINING - THE CHOICES

5. Organiser of training



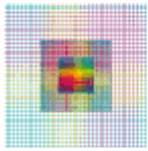
6. Cost of training





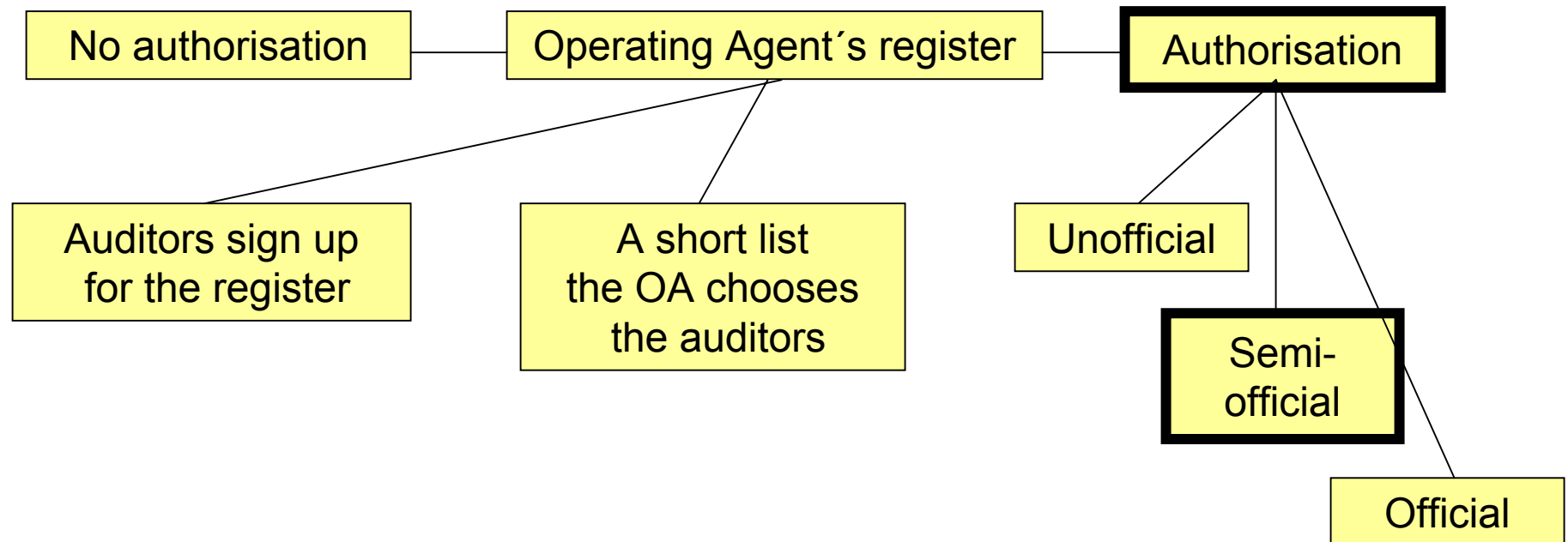
THE STATE OF THE ART TRAINING

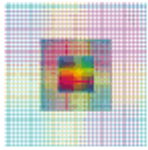
- MANDATORY
- PRE-QUALIFICATION REQUIRED
- TECHNICAL TRAINING
- THEORY TEST + PRACTICAL TEST WITH A PILOT AUDIT
- OPERATING AGENT AT LEAST THE ADMINISTRATOR
- COST OF TRAINING MEDIUM OR HIGH
- + REGULAR EXTENSION COURSES AND MANDATORY ANNUAL MEETINGS



AUTHORISATION - THE CHOICES

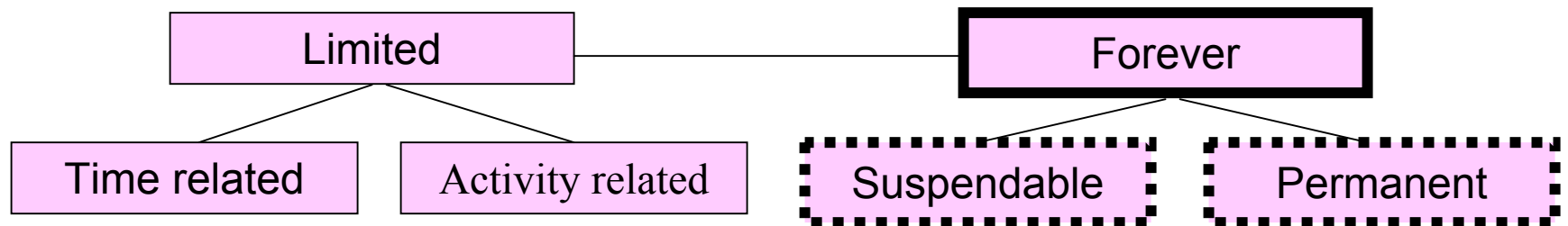
1. Basic choice



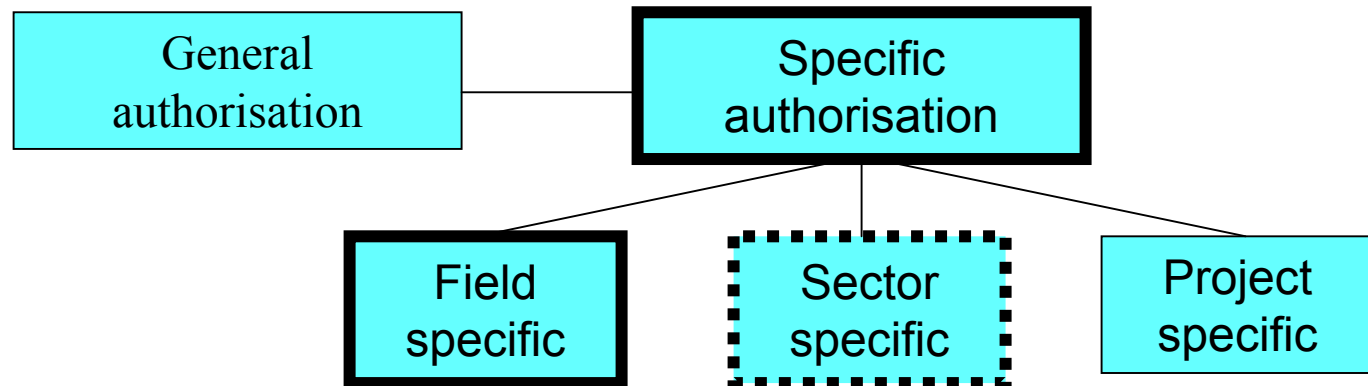


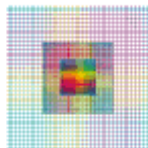
AUTHORISATION - THE CHOICES

2. Duration of validity



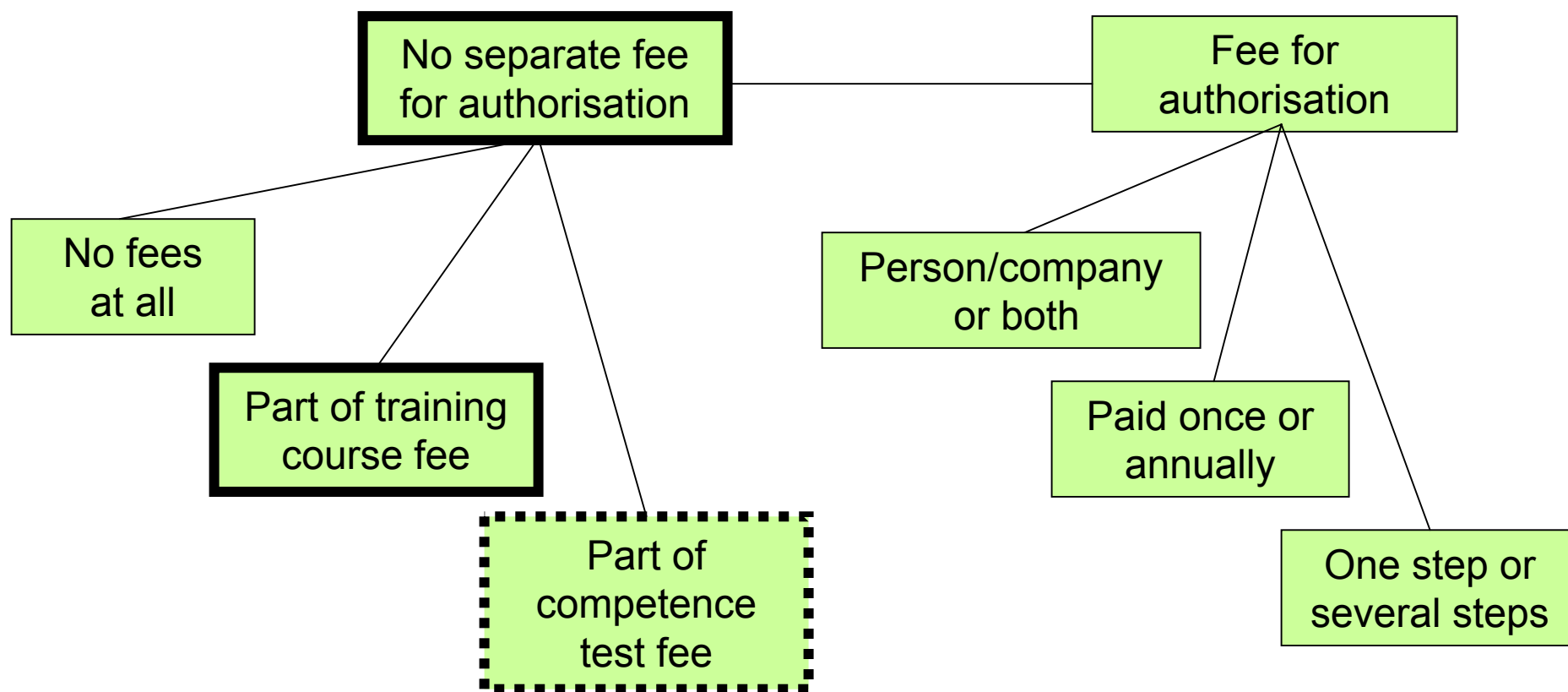
3. Area of validity

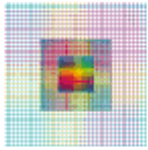




AUTHORISATION - THE CHOICES

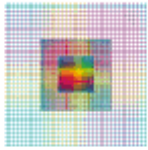
4. Cost for authorisation





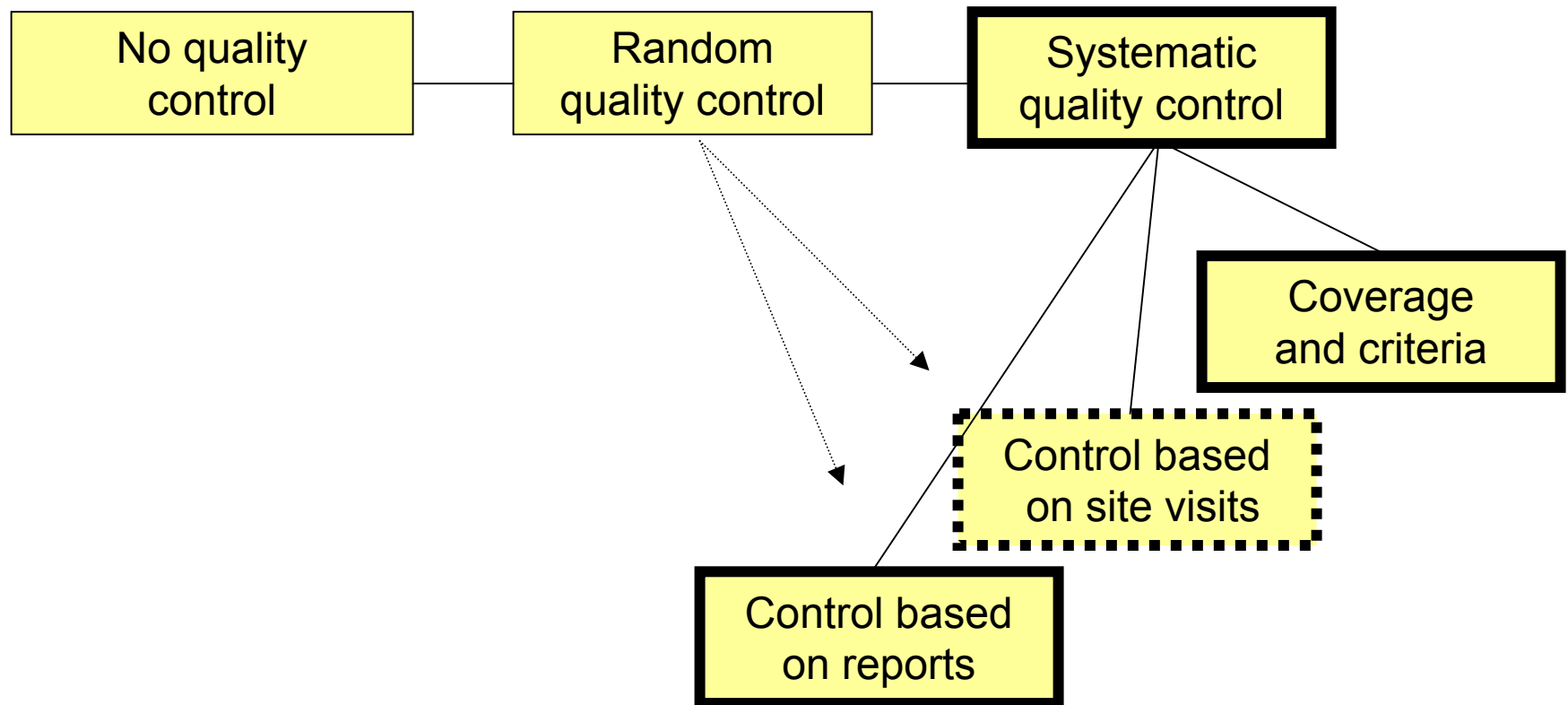
THE STATE-OF-THE-ART AUTHORISATION

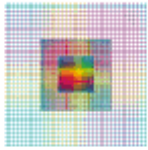
- SEMI-OFFICIAL FOR PERSONS COMBINED WITH OA'S REGISTER ON SHORT LISTED COMPANIES
- DURATION OF VALIDITY LIMITED TO 2 YEARS (PERSONAL) AND SHORT LIST OF COMPANIES UPDATED ANNUALLY
- AREA OF VALIDITY: BOTH FIELD & SECTOR SPECIFIC AUTHORISATIONS IN FORCE
- ANNUAL FEE (M/H) FOR COMPANIES, ONE FIXED FEE (M) FOR AUDITORS
- + OTHER OFFICIAL AUTHORISATIONS NEEDED FOR THE AUDITING WORK MUST BE CLEARLY SPECIFIED
- + CLEAR RULES FOR MISCONDUCT AND SANKTIONS
- + OA'S LEGAL POSITION SECURED IN CASE OF DISPUTE ON SANKTIONS



QUALITY CONTROL - THE CHOICES

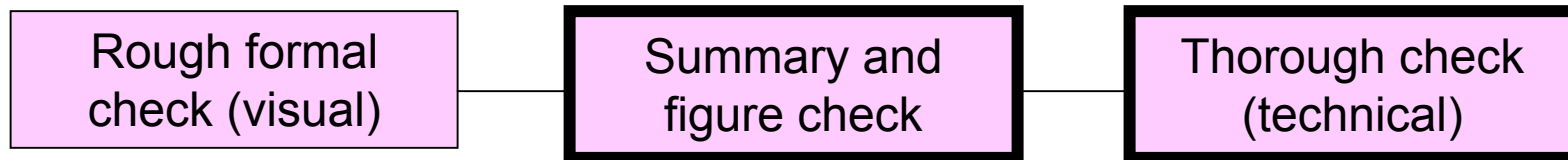
1. Basic choice



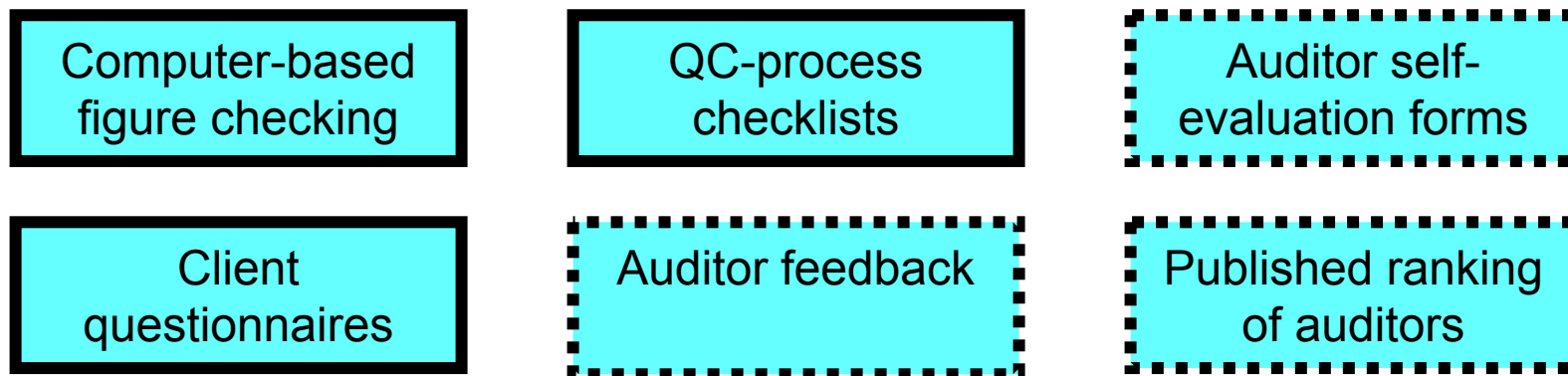


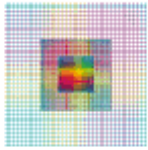
QUALITY CONTROL - THE CHOICES

2. Thoroughness of QC



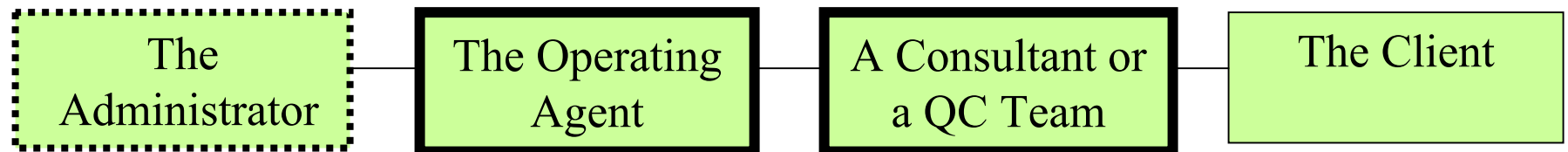
3. Tools for QC



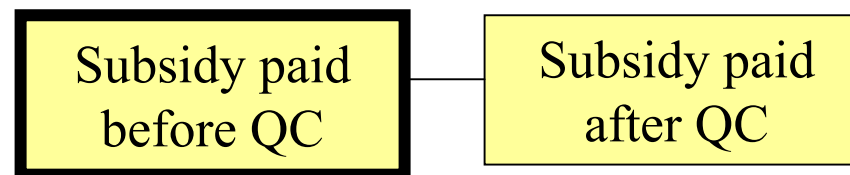


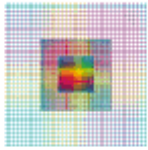
QUALITY CONTROL - THE CHOICES

4. Performer of QC



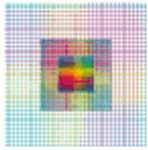
5. Connection to subsidies





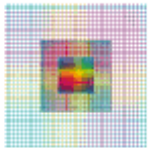
THE STATE-OF-THE-ART QUALITY CONTROL

- SYSTEMATIC QC COVERING ALL PROJECTS
- CHECKING AUDIT REPORTS BUT ON-SITE QC-AUDITS SHOULD ALSO BE POSSIBLE
- SUMMARY AND FIGURE CHECK FOR ALL REPORTS
- THOROUGH CHECK FOR ONE OR A FEW SELECTED REPORTS FROM EACH PROJECT
- QC WORK CARRIED OUT BY “PROFESSIONAL” CONTROLLERS, EITHER THE OA OR A TEAM OF HANDPICKED CONSULTANTS WITH AUDITOR EXPERIENCE



THE STATE-OF-THE-ART QUALITY CONTROL

- QC TOOLS UTILIZED (Depending on the size of the programme)
- QC WORK PAID BY THE ADMINISTRATOR, "SECOND ROUNDS" BY THE AUDITORS IN CONCERN
- SUBSIDY PAID AFTER THE QC
- + INTRODUCE A (PUBLIC) GRADING SYSTEM
- + GOOD CO-OPERATION BETWEEN THE OA AND THE AUDITORS



THE PROCESS IS ITERATION

